WHAT IS CLAIMED IS:

1. A hydrodynamic type oil-impregnated sintered bearing, comprising: a porous bearing body of sintered metal having a bearing surface opposed to a sliding surface of a rotating shaft to be supported via a bearing clearance,

and hydrodynamic pressure generating grooves slating against an axial direction provided in the bearing surface; and lubricating oil or lubricating grease impregnated in pores inside the bearing body, wherein

said lubricating oil or the base oil of said lubricating grease is one lubricating oil selected from among (a) mixtures of poly-α-olefin or hydrogenated compound thereof and ester and (b) ester.

2. The hydrodynamic type oil-impregnated sintered bearing according to claim 1, wherein

the compounding ratio of poly-α-olefin or hydrogenated compound thereof to ester ranges from 95:5 to 0:100 in weight ratio.

3. The hydrodynamic type oil-impregnated sintered bearing according to claim 1 or 2, wherein

said ester is polyol ester.

4. The hydrodynamic type oil-impregnated sintered bearing according to claim 1, wherein

said sintered metal is composed mainly of more than one type of material selected from among copper, iron, and aluminum.

5. The hydrodynamic type oil-impregnated sintered bearing according to claim 1, wherein:

a plurality of bearing surfaces are formed on the inner periphery of said bearing body so as to be separated one another; and

the inner diameters of said bearing body at areas between the bearing surfaces are arranged so as to be greater than the inner diameters at areas on the bearing surfaces except the hydrodynamic pressure generating grooves.

6. A spindle motor for information equipment, comprising a rotating shaft rotating with rotating components of the information equipment, a bearing for supporting the rotating shaft, and a rotor and stator arranged so as to face each other via a prescribed gap, wherein:

said bearing comprises a porous bearing body of sintered metal having a bearing surface opposed to a sliding surface of the rotating shaft via a bearing clearance, and hydrodynamic pressure generating grooves slating against an axial direction provided in the bearing surface, and lubricating oil or lubricating grease impregnated in pores inside the bearing body; and

said lubricating oil or the base oil of said lubricating grease is one lubricating oil selected from among (a) mixtures of poly-α-olefin or hydrogenated compound thereof and ester and (b) ester.

7. The spindle motor for information equipment according to claim 6, wherein

the compounding ratio of poly-α-olefin or hydrogenated compound thereof to ester ranges from 95:5

to 0:100 in weight ratio.

8. The spindle motor for information equipment according to claim 6 or 7, wherein

said ester is polyol ester.

9. The spindle motor for information equipment according to claim 6, wherein

said sintered metal is composed chiefly of more than one type of material selected from among copper, iron, and aluminum.

10. The spindle motor for information equipment according to claim 6, wherein:

a plurality of bearing surfaces are formed on the inner periphery of said bearing body so as to be separated one another; and

the inner diameters of said bearing body at areas between the bearing surfaces are arranged so as to be greater than the inner diameters at areas on the bearing surfaces except the hydrodynamic pressure generating grooves.

11. A hydrodynamic type oil-impregnated sintered bearing comprising: a porous bearing body of sintered metal having a bearing surface opposed to a sliding surface of a rotating shaft to be supported via a bearing clearance,

and hydrodynamic pressure generating grooves slating against an axial direction provided in the bearing surface; and a lubricant impregnated in pores inside said bearing body, wherein

the lubricant impregnated into said bearing body is

a lubricating grease comprising a thickener in a compounding ratio of from 0.1% to 5.0% by weight.

12. The hydrodynamic type oil-impregnated sintered bearing according to claim 11, wherein

a base oil of said lubricating grease forms a lubricating film in the bearing clearance by the hydrodynamic pressure effect of said hydrodynamic pressure generating grooves while circulating between the inside of said bearing body and the bearing clearance via surface holes in the surfaces of said bearing body including the bearing surface; and

the lubricating film non-contact supports the sliding surface of the rotating shaft against the bearing surface.

13. The hydrodynamic type oil-impregnated sintered bearing according to claim 11, wherein

said sintered metal is composed chiefly of more than one type of material selected from among copper, iron, and aluminum.

14. The hydrodynamic type oil-impregnated sintered bearing according to claim 11, wherein

the thickener of said lubricating grease is urea compound.

15. The hydrodynamic type oil-impregnated sintered bearing according to claim 14, wherein

said urea compound is more than one type of compound selected from the group represented by the following formula (1):

$$R1\text{-}NHCONH\text{-}R2\text{-}NHCONH\text{-}R3, \qquad (1)$$

where

R2 represents an aromatic hydrocarbon group having from 6 to 15 carbon atoms, R1 and R3 represent an aromatic hydrocarbon group having from 6 to 12 carbon atoms or an alkyl group having from 8 to 20 carbon atoms, and the rates of the aromatic hydrocarbon group in R1 and R3 range from 0% to 100% by mole.

16. The hydrodynamic type oil-impregnated sintered bearing according to claim 11, wherein:

a plurality of bearing surfaces are formed on the inner periphery of said bearing body so as to be separated one another; and

the inner diameters of said bearing body at areas between the bearing surfaces are arranged so as to be greater than the inner diameters at areas on the bearing surfaces except the hydrodynamic pressure generating grooves.

17. A spindle motor for information equipment, comprising a rotating shaft rotating with rotating components of the information equipment, a bearing for supporting the rotating shaft, and a rotor and stator arranged so as to face each other via a prescribed gap, wherein:

said bearing comprises a porous bearing body of sintered metal having a bearing surface opposed to a sliding surface of the rotating shaft via a bearing clearance, and hydrodynamic pressure generating grooves slating against an axial direction provided in the

bearing surface, and a lubricant impregnated in pores inside said bearing body; and

said lubricant is a lubricating grease comprising a thickener in a compounding ratio ~~of~~ from 0.1% to 5.0% by weight.

18. The spindle motor for information equipment according to claim 17, wherein:

the base oil of said lubricating grease forms a lubricating film in the bearing clearance by the hydrodynamic pressure effect of said hydrodynamic pressure generating grooves while circulating between the inside of said bearing body and the bearing clearance via surface holes in the surfaces of said bearing body including the bearing surface; and

the lubricating film non-contact supports the sliding surface of the rotating shaft against the bearing surface.

19. The spindle motor for information equipment according to claim 17, wherein

said sintered metal is composed chiefly of more than one type of material selected from among copper, iron, and aluminum.

20. The spindle motor for information equipment according to claim 17, wherein

the thickener of said lubricating grease is urea compound.

21. The spindle motor for information equipment according to claim 20, wherein

said urea compound is more than one type of

compound selected from the group represented by the following formula (1):

R1-NHCONH-R2-NHCONH-R3, (1)

where

R2 represents an aromatic hydrocarbon group having from 6 to 15 carbon atoms, R1 and R3 represent an aromatic hydrocarbon group having from 6 to 12 carbon atoms or an alkyl group having from 8 to 20 carbon atoms, and the rates of the aromatic hydrocarbon group in R1 and R3 range from 0% to 100% by mole.

22. The spindle motor for information equipment according to claim 17, wherein:

a plurality of bearing surfaces are formed on the inner periphery of said bearing body so as to be separated one another; and

the inner diameters of said bearing body at areas between the bearing surfaces are arranged so as to be greater than the inner diameters at areas on the bearing surfaces except the hydrodynamic pressure generating grooves.

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